Pushing the Envelope			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 5			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	OK	MA.5.4.1.c	Convert basic measurements of volume, mass and distance within the same system for metric and customary units (e.g., inches to feet, hours to minutes, centimeters to meters).
Chemistry (pgs. 25-41)	OK	MA.5.2.1.c	Identify and compare integers using real world situations. (e.g., owing money, temperature, or measuring elevations above and below sea level).
Chemistry (pgs. 25-41)	OK	MA.5.4.1.c	Convert basic measurements of volume, mass and distance within the same system for metric and customary units (e.g., inches to feet, hours to minutes, centimeters to meters).

Pushing the Envelope			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 6			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	OK	MA.6.1.3	Use substitution to simplify and evaluate algebraic expressions (e.g., if x = 5 evaluate 3 - 5x).
Chemistry (pgs. 25-41)	OK	MA.6.1.3	Use substitution to simplify and evaluate algebraic expressions (e.g., if x = 5 evaluate 3 - 5x).
Physics and Math (pgs. 43-63)	OK	MA.6.1.3	Use substitution to simplify and evaluate algebraic expressions (e.g., if x = 5 evaluate 3 - 5x).

Pushing the Envelope			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 7			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	OK	MA.7.4.1	Develop and apply the formulas for perimeter and area of triangles and quadrilaterals to solve problems.
Types of Engines (pgs. 11-23)	OK	MA.7.4.2	Apply the formula for the circumference and area of a circle to solve problems.
Chemistry (pgs. 25-41)	OK	MA.7.4.1	Develop and apply the formulas for perimeter and area of triangles and quadrilaterals to solve problems.
Chemistry (pgs. 25-41)	OK	MA.7.4.2	Apply the formula for the circumference and area of a circle to solve problems.

Activity/Lesson	State	Standards	
Physics and Math (pgs. 43-63)	OK	MA.7.1.1	Identify, describe, and analyze functional relationships (linear and nonlinear) between two variables (e.g., as the value of x increases on a table, do the values of y increase or decrease, identify a positive rate of change on a graph and compare it to a negative rate of change).
Physics and Math (pgs. 43-63)	OK	MA.7.4.1	Develop and apply the formulas for perimeter and area of triangles and quadrilaterals to solve problems.
Physics and Math (pgs. 43-63)	OK	MA.7.4.2	Apply the formula for the circumference and area of a circle to solve problems.
Rocket Activity (pgs. 69-75)	OK	MA.7.4.1	Develop and apply the formulas for perimeter and area of triangles and quadrilaterals to solve problems.
Rocket Activity (pgs. 69-75)	OK	MA.7.4.2	Apply the formula for the circumference and area of a circle to solve problems.
Pushing the Envelope			
2009 Mathematics			
Priority Academic Student Skills			
Oklahoma Mathematics			
Grade 8			
Activity/Lesson	**State**	**Standards**	
Types of Engines (pgs. 11-23)	OK	MA.8.1.1.d	Apply appropriate formulas to solve problems (e.g., d=rt, I=prt).
Types of Engines (pgs. 11-23)	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.
Types of Engines (pgs. 11-23)	OK	MA.8.4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).
Chemistry (pgs. 25-41)	OK	MA.8.1.1.d	Apply appropriate formulas to solve problems (e.g., d=rt, I=prt).
Chemistry (pgs. 25-41)	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.
Chemistry (pgs. 25-41)	OK	MA.8.4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).
Physics and Math (pgs. 43-63)	OK	MA.8.1.1.d	Apply appropriate formulas to solve problems (e.g., d=rt, I=prt).
Physics and Math (pgs. 43-63)	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.

Physics and Math (pgs. 43-63)	OK	MA.8.4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).
Rocket Activity (pgs. 69-75)	OK	MA.8.3.2	Develop the Pythagorean Theorem and apply the formula to find the length of line segments, the shortest distance between two points on a graph, and the length of an unknown side of a right triangle.
Rocket Activity (pgs. 69-75)	OK	MA.8.4.1	Develop and apply formulas to find the surface area and volume of rectangular prisms, triangular prisms, and cylinders (in terms of pi).